

CLAIMS

I Claim:

- 1 1. A video driver system comprising:
2 a first graphics device having an input and a first video component output to provide
3 a first video output component signal;
4 a second graphics device having an input and a first video output component output to
5 provide a first video output component signal;
6 a first video output port having a first node coupled to the first video component
7 output of the first graphics device and the first video component output of the
8 second graphics device; and
9 a second video output port having a first node coupled to the second video component
10 output of the second graphics device.
- 1 2. The system of claim 1 further comprising:
2 an oscillator coupled to the first graphics device;
3 the first graphics device having a periodic output to provide a periodic output signal
4 based upon the oscillator; and
5 a synchronizer device having a first input coupled to the periodic output, and having
6 an output coupled to the second graphics device.
- 1 3. The system of claim 2, wherein the periodic output signal is a horizontal
2 synchronization signal.
- 1 4. The system of claim 2, wherein the periodic output signal is a vertical synchronization
2 signal.
- 1 5. The system of claim 2, wherein:
2 the second graphics device further comprises a periodic output to provide a periodic
3 output signal based on the oscillator; and
4 the synchronizer further comprises a second input coupled to the periodic output of
5 the second graphics device.
- 1 6. The system of claim 5 further comprising:
2 the synchronizer device having a synch output to indicate when synchronization
3 occurs between the first graphics device and the second graphics device; and
4 a controller having a first input coupled to the synch output, a second input coupled to
5 the first graphics device, and a third input coupled to the second graphics device,
6 and a port selector output to indicate which of the first graphics device and the
7 second graphics device is to provide a first video output component signal to a
8 first node of the first video port.

- 1 7. The system of claim 6, wherein:
2 the first graphics device further comprises a control output coupled to the first input
3 of the controller; and
4 the second graphics device further comprises a control output coupled to the second
5 input of the controller.
- 1 8. The system of claim 6 further comprising:
2 a bus; wherein
3 the first input and the second input of the controller are a common input coupled to
4 the bus;
5 the first graphics device further comprises a bus port coupled to the bus; and
6 the second graphics device further comprises a bus port coupled to the bus.
- 1 9. The system of claim 8, wherein the bus is a PCI (Peripheral Component Interface)
2 bus.
- 1 10. The system of claim 1 further comprising:
2 a first switch having a first input coupled to the first video component output of the
3 first graphics port, and a second input coupled to the first video component output
4 of the second graphics port, and an output coupled to the first node of the first
5 video output port, wherein the node of the first video output port is coupled to the
6 first and second graphics devices through the first switch.
- 1 11. The system of claim 10, further comprising:
2 a comparator having a first input coupled to the first node of the first video output
3 port, a second input to receive a reference signal, and an output; and
4 a controller having a first input coupled to the output of the comparator.
- 1 12. The system of claim 11, wherein the comparator is a voltage comparator, and the
2 reference signal is a voltage reference signal.
- 1 13. The system of claim 11, wherein the comparator is a current comparator, and the
2 reference signal is a current reference signal.
- 1 14. The system of claim 10, further comprising:
2 a variable reference source having an input coupled to a first output of the controller,
3 and an output coupled to a first video output component adjust input of the second
4 graphics device.
- 1 15. The system of claim 14, wherein the variable reference source is a current source.

1 16. The system of claim 10, further comprising:
 2 a second switch, wherein the second switch has a first input coupled to the first video
 3 component output of the first graphics port, a second input coupled to the first
 4 video component output of the second graphics port, and an output coupled to a
 5 first node of a resistive element, wherein the resistive element is coupled to the
 6 first and second graphics devices through the second switch.

1 17. The system of claim 1 further comprising:
 2 a second switch, having a first input coupled to the first video component output of
 3 the first graphics port, and a second input coupled to the first video component
 4 output of the second graphics port, and an output coupled to the first node of the
 5 second video output port, wherein the second video output port is coupled to the
 6 first and second graphics devices through the first switch.

1 18. The system of claim 1 further comprising a monitor coupled to the first video output
 2 port.

1 19. A method of providing a video signal, the method comprising:
 2 generating a first signal at a first device, wherein the first signal is representative of a
 3 first video output component;
 4 providing the first signal to a first node;
 5 determining a value of the first signal at a first output node;
 6 generating a second signal at a second device, wherein the second signal is
 7 representative of a first video output component;
 8 providing the second signal of the second device to the first output node; and
 9 adjusting the second device until a value of the second signal at the first output node
 10 substantially matches the determined value of the first signal at the first output
 11 node.

1 20. The method of claim 19, further comprising the step of:
 2 removing the first signal from the first node prior to the step of providing the second
 3 signal.

1 21. The method of claim 19, wherein the value of the first and second signals is a voltage
 2 value.

1 22. The method of claim 19, wherein the step of determining includes the substep of:
 2 modifying and comparing the value of the first device until the value of the first
 3 signal substantially matches a predetermined value.

23. The method of claim 22, further comprising the steps of:
determining a first digital value associated with the first device, wherein the value of the first signal is based on the first digital value when the first signal substantially matches the predetermined value;
providing the first digital value to the second device;
the step of providing the second signal includes providing the second signal from the second device based on the first digital value; and
the step of adjusting includes adjusting the second device without changing the first digital value.

24. The method of claim 23, wherein the first digital value is associated with a digital to analog converter of the first device.

25. The method of claim 19, further comprising the steps of:
generating a third signal at the first device, wherein the third signal is representative of a second video output component;
providing the third signal to a second output node;
determining a value of the third signal at the second output node;
generating a fourth signal at the second device, wherein the fourth signal is representative of a second video output component;
providing the fourth signal of the second device to the second output node;
adjusting the second device until a value of the fourth signal at the first node substantially matches the determined value of the third signal at the second output node.

26. The method of claim 25, wherein:
the step of adjusting the second device until a value of the fourth signal includes adjusting a signal received by the second device;
the step of adjusting the second device until a value of the fourth signal includes adjusting a color palette associated with the second device.

27. A method of providing a video signal, the method comprising:
generating a first signal and a second signal from a first device, wherein the first signal is representative of a first video output component of a first frame of video data, and the second signal is representative of a first video output component of a second frame of video data;
generating a third signal from a second device, wherein the third signal is representative of a first video output component of a third frame of video data;
providing the first signal to a first port during a first time period;
providing the third signal to the first port during a second time period, wherein the second time period is sequentially adjacent to the first time period; and
providing the second signal to the first port during a third time period, wherein the third time period is sequentially adjacent to the second time period.

28. The method of claim 27, further comprising the step of:

receiving a state indicator;

wherein the steps of providing occur when the state indicator has a first state value;

and

5 when the state indicator has a second state value performing the following steps:

providing the first signal to the first port;

providing the third signal to a second port; and

providing the second signal to the first port after the step of providing the first signal to the first port.

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